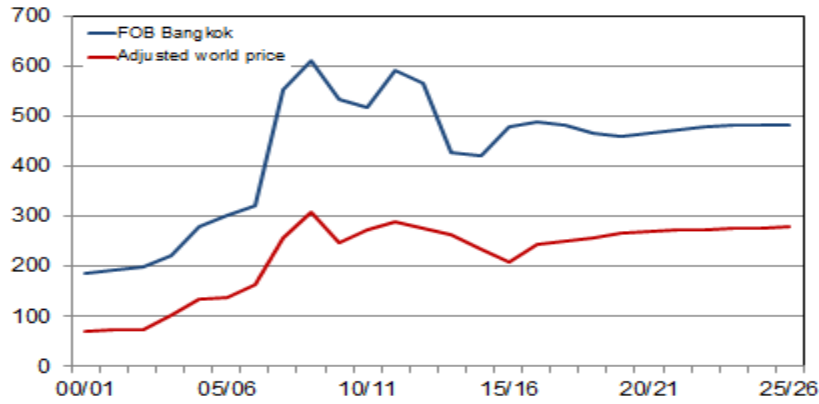


# Rice

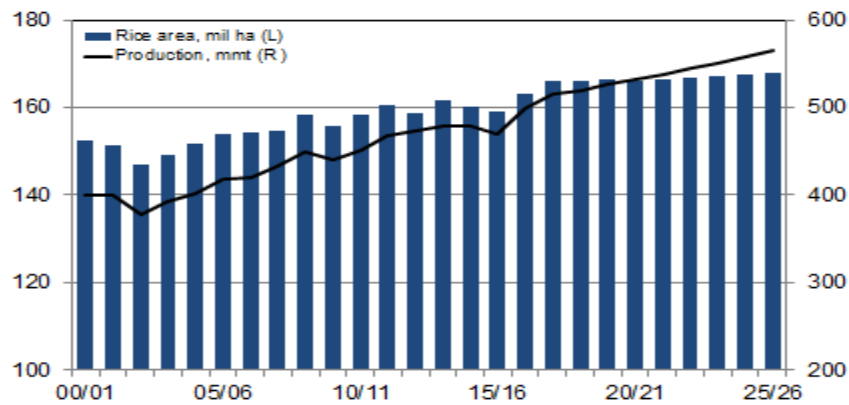
- Rice price relationships are becoming distorted again this year. The relatively thin rice market compared to other agricultural commodities and concentration of trade in Asia are factors that are contributing to the anomaly. Furthermore, different price series do not reflect consistent variety and quality factors, and prices can and do diverge in some years.
- The U.S. is a relatively small player in world rice markets and therefore has limited impact on prices. Supply and utilization in major Asian rice markets shape prices on the world market.
- The increase in FOB Bangkok prices will be more pronounced when denominated in many Asian currencies. The U.S. dollar has strengthened substantially relative to many currencies. The dollar recently strengthened relative to the currencies of China, Japan, South Korea, Thailand, India, and other major Asian currencies.
- Although there will be more currency adjustments in the baseline period, they are not expected to be as substantial as those happening at the present time. This will contribute to the only modest rise expected in rice prices.
- With lower prices in the past two years, rice area fell in 2015/16. Not only was there a small decline in area, but yields fell a small amount, also, resulting in less production. This is contributing in a turnaround in FOB Bangkok prices and it is expected that this will induce an increase in rice area in the next few years. The increase in area is expected to take place mainly in the two major rice exporting countries of Thailand and India.
- As area and production increase and exportable supplies rise in major exporting countries, the upward pressure on rice prices will diminish. As this occurs, the incentive for increasing plantings will also disappear and global rice area is expected to stabilize.
- Rice yields are projected to increase at the same rate as they have historically. Combined with increases in area in the next two years, this rate of productivity increase will be sufficient to meet global rice demand in the medium term. The 1% annual increase in global rice yields will outstrip the rate of population growth in the latter half of the outlook period, and with stable area, rice supplies will be adequate to meet population-induced demand growth.
- Rice consumption is expected to increase with global population growth being the primary driver. Income impacts on rice in diets are different for different regions and income levels. As the traditional staple of Asia, the main consuming region, income impacts are quite small.
- In developed nations, income impacts on rice consumption are somewhat larger. In the U.S., for example, meals away from home are often ethnic cuisine that includes rice. Growing populations of Asians and Latin Americans have introduced their foods into the general American diet.
- Rice consumption is increasing in other regions of the world. Rice, while not the main staple, is also important in Latin American diets as it is in parts of Africa.

### Rice Prices Will Not Stay at Recent Bottom

Rice prices, \$/mt

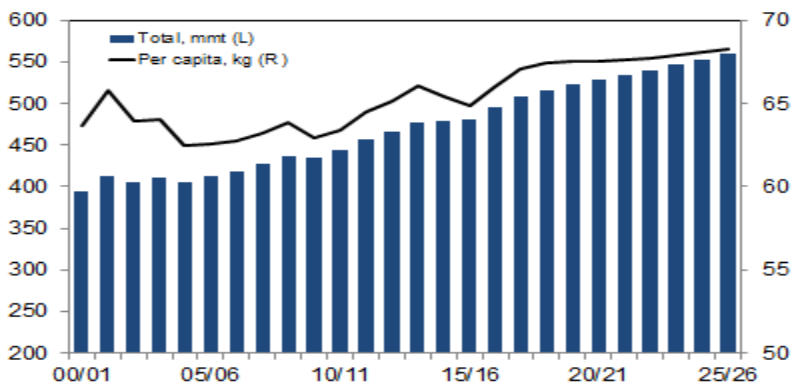


### Long-Term Area Stabilization



### Rice Spreads Beyond Traditional Consuming Areas

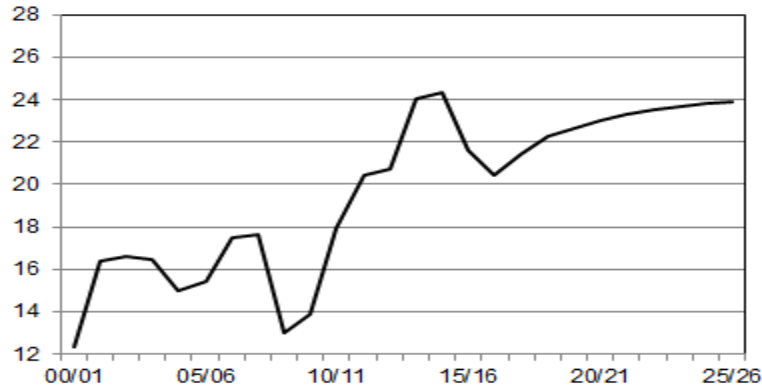
Global rice food use



- The level of self-sufficiency in rice consuming nations is high compared to other grains. The proportion of the global crop that is traded is around 4%. Therefore, even modest changes in production can have relatively large impacts on trade and prices at export points.
- Thailand and India are the dominant rice exporters, accounting for more than 80% of rice exports. Rice trade is a vital source of export earnings for these countries. The smaller Indian rice crop in 2015/16 is limiting that country's exportable supplies and overall trade is shrinking this year.
- Rice imports are more broadly distributed than exports with trade expanding in all regions of the world. China is expected to be a consistent importer and with the EU will be among the largest importers. In addition Malaysia has steadily been increasing purchases on the world market for more than a decade and is nearly even with the EU in purchases on the world market.
- Japan and South Korea are expected to continue importing at their committed tariff rate quota levels throughout the baseline period.
- Smaller crops in India and Thailand in 2015/16 quickened the decline in global ending stocks and a decline in the stocks-to-use ratio. Inventories from those two countries have been shrinking for the past two years, as they adjusted built-up carryover downward. With the outlook for stable prices resulting in smooth production and utilization patterns over the next ten years, it is expected that inventories will also be stable compared to consumption.
- As with other vital agricultural commodities, China's stock policy is to keep plenty of rice on hand to absorb production and price shocks, both domestic and abroad. This allows China to meet short-term domestic needs without having to face volatile prices on the world market. However, China has not undertaken a major rice stock buildup as it has with other commodities such as cotton, wheat, and corn.
- The rest of the world has a lesser ability to weather market disruptions. As such, rice prices will continue to have the potential to be more volatile than for many other commodities.

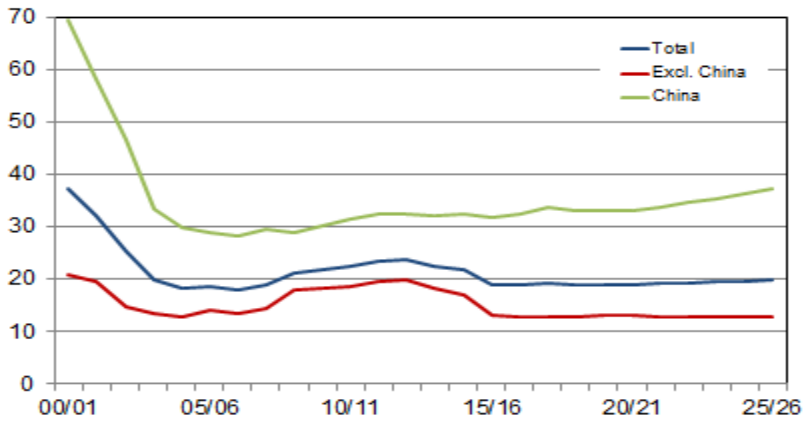
### Thailand, India Supply Rice to the World

Rice net exports of exporting countries, mmt



### Food Security a Vital Issue in China

Stocks-to-use, percent



## World Rice Supply & Utilization

	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
					(Million hectares)						
<b>Area Harvested</b>	151.8	153.9	154.5	154.8	158.2	155.8	158.4	160.7	158.5	161.7	160.0
					(Metric tons per hectare)						
<b>Yield, milled basis</b>	2.64	2.71	2.72	2.80	2.84	2.83	2.84	2.91	2.98	2.96	2.99
					(Million metric tons)						
<b>Supply</b>	495.2	504.1	511.3	525.2	541.7	544.1	561.2	583.6	597.3	609.7	607.5
Production	400.8	417.8	420.1	433.6	449.4	440.7	450.4	467.6	472.5	478.5	478.3
Beginning stocks	81.7	74.0	76.5	75.4	80.9	92.7	95.0	100.0	106.8	110.5	107.5
Net imports	12.7	12.3	14.7	16.2	11.5	10.7	15.9	15.9	18.0	20.7	21.7
<b>Utilization</b>	480.2	488.7	493.8	507.6	528.7	530.2	543.3	563.1	576.6	585.7	583.1
Consumption	406.2	412.3	418.4	426.7	436.0	435.2	443.3	456.4	466.1	478.2	479.2
Ending stocks	74.0	76.5	75.4	80.9	92.7	95.0	100.0	106.8	110.5	107.5	103.9
<b>Net exports</b>	15.0	15.4	17.5	17.6	13.0	13.9	17.9	20.4	20.7	24.1	24.4
<b>Total Demand</b>	495.2	504.1	511.3	525.2	541.7	544.1	561.2	583.6	597.3	609.7	607.5



## Rice Area Harvested

	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
	(Million hectares)										
Argentina	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2
Australia	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Brazil	3.9	3.0	3.0	2.9	2.9	2.8	2.8	2.4	2.4	2.4	2.3
China	28.4	28.8	28.9	28.9	29.2	29.6	29.9	30.1	30.1	30.3	30.3
EU-28	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4
India	42.3	43.4	44.0	43.8	45.4	41.9	42.9	44.1	42.4	44.1	43.0
Japan	1.7	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.6	1.6
Malaysia	0.7	0.7	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Mexico	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
South Korea	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.8
Thailand	10.0	10.2	10.3	10.8	10.8	10.9	10.7	11.0	10.8	10.9	10.3
United States	1.3	1.4	1.1	1.1	1.2	1.3	1.5	1.1	1.1	1.0	1.2
Rest of world	61.8	63.0	63.2	63.4	64.7	65.4	66.7	68.0	67.7	69.0	69.1
<b>World total</b>	<b>151.8</b>	<b>153.9</b>	<b>154.5</b>	<b>154.8</b>	<b>158.2</b>	<b>155.8</b>	<b>158.4</b>	<b>160.7</b>	<b>158.5</b>	<b>161.7</b>	<b>160.0</b>



## Rice Area Harvested

	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
	(Million hectares)										
Argentina	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Australia	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Brazil	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.2	2.2	2.2	2.2
China	30.2	30.4	31.0	30.3	30.6	30.8	30.8	30.7	30.5	30.3	30.1
EU-28	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
India	43.0	43.8	44.1	44.2	44.5	44.5	44.6	44.5	44.6	44.5	44.5
Japan	1.6	1.6	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5
Malaysia	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Mexico	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
South Korea	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7
Thailand	9.7	10.7	11.2	11.4	11.5	11.4	11.4	11.3	11.3	11.2	11.1
United States	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Rest of world	68.9	70.8	72.5	73.1	72.6	72.3	72.4	73.0	73.7	74.3	75.1
<b>World total</b>	<b>158.9</b>	<b>163.0</b>	<b>166.0</b>	<b>166.2</b>	<b>166.4</b>	<b>166.1</b>	<b>166.3</b>	<b>166.7</b>	<b>167.0</b>	<b>167.3</b>	<b>167.7</b>

## Rice Trade

	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13	13/14	14/15
	(Thousand metric tons)										
<b>Net exporters</b>											
Argentina	315	477	445	434	548	481	698	588	532	460	395
Australia	-26	232	-32	-152	-200	-169	232	324	288	230	220
Brazil	-228	-476	-490	128	-106	-186	847	223	199	289	550
India	4,569	4,682	5,740	4,654	2,090	2,082	2,774	10,376	10,869	10,149	11,871
Thailand	7,274	7,374	9,554	10,003	8,270	8,747	10,447	6,345	6,122	10,669	8,900
United States	3,077	3,116	2,270	2,577	2,422	2,912	2,934	2,585	2,716	2,271	2,424
Total net exports	14,981	15,405	17,487	17,644	13,024	13,867	17,932	20,441	20,726	24,068	24,360
<b>Net importers</b>											
China	-47	-562	-868	-927	-546	-262	40	1,349	2,803	3,755	3,889
EU-28	912	972	1,201	1,427	1,210	1,096	1,153	1,092	1,192	1,288	1,431
Japan	598	531	558	436	467	504	611	422	566	599	570
Malaysia	700	751	873	1,036	1,085	906	1,075	1,006	885	989	1,000
Mexico	550	579	594	572	578	571	709	644	741	691	696
South Korea	-77	-4	94	254	253	297	401	377	508	311	448
Rest of world	10,066	10,029	12,294	13,431	8,423	7,615	11,879	11,030	11,337	13,054	13,713
Total net imports	12,702	12,296	14,746	16,229	11,470	10,727	15,868	15,920	18,032	20,687	21,747
Residual	2,279	3,109	2,741	1,415	1,554	3,140	2,064	4,521	2,694	3,381	2,613
	(Dollars per metric ton)										
<b>Rice price, FOB Bangkok</b>	280	301	320	551	609	533	518	590	565	428	419

## Rice Trade

	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	23/24	24/25	25/26
	(Thousand metric tons)										
<b>Net exporters</b>											
Argentina	514	485	484	493	505	519	532	542	553	564	577
Australia	-76	-33	20	57	82	101	117	129	137	142	144
Brazil	192	458	341	208	173	304	383	465	530	607	654
India	8,487	8,361	8,579	9,031	9,196	9,275	9,414	9,473	9,553	9,607	9,670
Thailand	10,001	8,776	9,486	9,797	10,000	10,118	10,190	10,224	10,217	10,180	10,102
United States	2,498	2,418	2,560	2,678	2,721	2,691	2,688	2,701	2,721	2,744	2,780
Total net exports	21,616	20,467	21,470	22,263	22,678	23,008	23,325	23,534	23,710	23,844	23,929
<b>Net importers</b>											
China	4,144	4,335	4,351	4,438	4,492	4,542	4,593	4,640	4,695	4,745	4,795
EU-28	1,219	1,111	1,174	1,228	1,245	1,235	1,225	1,217	1,210	1,199	1,190
Japan	620	607	608	609	607	607	607	607	607	607	607
Malaysia	1,031	1,033	1,073	1,142	1,201	1,243	1,287	1,332	1,380	1,427	1,471
Mexico	724	731	750	770	784	791	800	809	820	830	841
South Korea	409	409	409	409	409	409	409	409	409	409	409
Rest of world	11,191	9,964	10,827	11,389	11,662	11,903	12,126	12,242	12,312	12,348	12,338
Total net imports	19,338	18,189	19,192	19,985	20,400	20,730	21,047	21,256	21,432	21,566	21,651
Residual	2,278	2,278	2,278	2,278	2,278	2,278	2,278	2,278	2,278	2,278	2,278
	(Dollars per metric ton)										
<b>Rice price, FOB Bangkok</b>	478	488	480	464	458	466	473	477	480	482	482